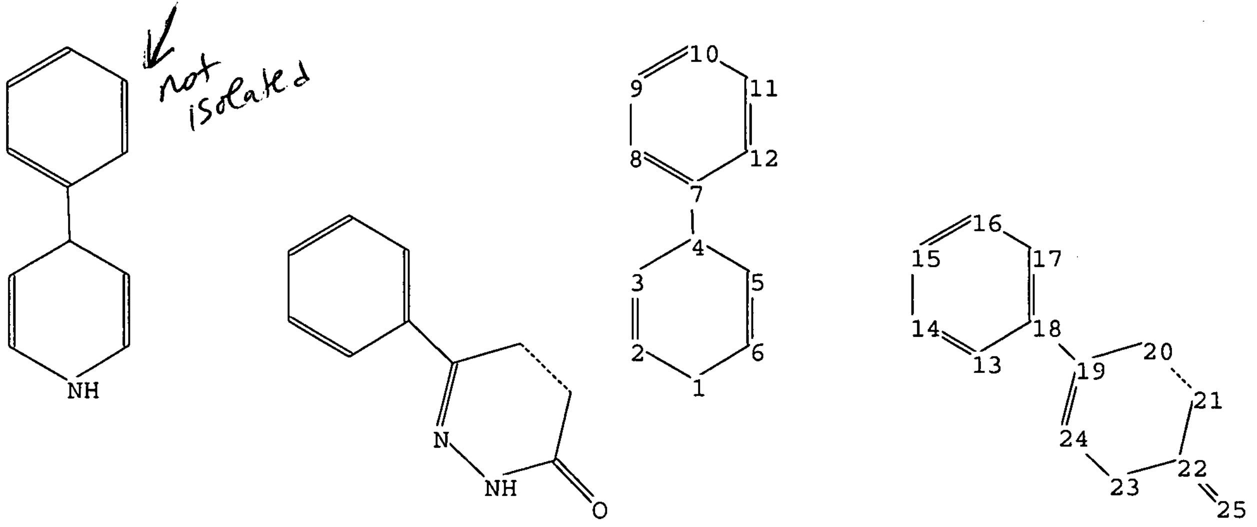

not isolated

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chain nodes :
25
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24
chain bonds :
4-7  18-19  22-25
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  7-8  7-12  8-9  9-10  10-11  11-12  13-14  13-18
14-15  15-16  16-17  17-18  19-20  19-24  20-21  21-22  22-23  23-24
exact/norm bonds :
1-2  1-6  2-3  3-4  4-5  5-6  19-20  19-24  20-21  21-22  22-23  22-25  23-24
exact bonds :
4-7  18-19
normalized bonds :
7-8  7-12  8-9  9-10  10-11  11-12  13-14  13-18  14-15  15-16  16-17  17-18
isolated ring systems :
containing 1 : 13 : 19 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom
20:Atom  21:Atom  22:Atom  23:Atom  24:Atom  25:CLASS



L1      STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 12:50:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      472 TO ITERATE

100.0% PROCESSED      472 ITERATIONS                             12 ANSWERS
```

```
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        8137 TO    10743
PROJECTED ANSWERS:             32 TO      446

L2           12 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 12:51:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     9855 TO ITERATE

100.0% PROCESSED     9855 ITERATIONS                            153 ANSWERS
SEARCH TIME: 00.00.01

L3          153 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                             SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                  167.38     167.59

FILE 'CAPLUS' ENTERED AT 12:51:18 ON 26 JAN 2006
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FILE LAST UPDATED: 25 Jan 2006  (20060125/ED)

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=> s l3
L4          15 L3

=> d ibib abs hitstr tot
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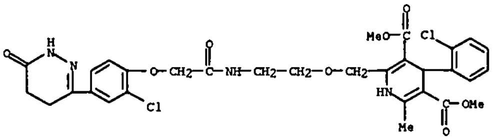
L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:144426 CAPLUS
DOCUMENT NUMBER: 142:367167
TITLE: Pharmacological effects of ATI22-107 [2-(2-(2-[2-chloro-4-(6-oxo-1,4,5,6-tetrahydro-pyridazin-3-yl)-phenoxy]-acetylamino)-ethoxymethyl)-4-(2-chloro-phenyl)-6-methyl-1,4-dihydro-pyridine-3,5-dicarboxylic acid dimethyl ester], a novel dual pharmacophore, on myocyte calcium cycling and contractility
AUTHOR(S): Jung, Albert S.; Quaile, Michael P.; Mills, Geoffrey D.; Bednarik, Daniel P.; Houser, Steven R.; Margulies, Kenneth B.
CORPORATE SOURCE: Departments of Physiology and Cardiology, Temple University, Philadelphia, PA, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2005), 312(2), 517-524
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Historically, inhibitors of type III phosphodiesterases (PDE-III) have been effective inotropes in mammalian myocardium, but their clin. utility has been limited by adverse events, including arrhythmias that are considered to be due to Ca2+ overload. ATI22-107 [2-(2-(2-[2-chloro-4-(6-oxo-1,4,5,6-tetrahydro-pyridazin-3-yl)-phenoxy]-acetylamino)-ethoxymethyl)-4-(2-chloro-phenyl)-6-methyl-1,4-dihydro-pyridine-3,5-dicarboxylic acid di-Me ester], a novel, dual pharmacophore compound, was designed to simultaneously inhibit the cardiac phosphodiesterase (PDE-III) and produce inotropic effects, whereas inhibiting the L-type calcium channel (LTCC) was designed to minimize increases in diastolic Ca2+. The authors compared the effects of ATI22-107 and enoximone, a pure PDE-III inhibitor, on the Fluo-3 calcium transient in normal feline ventricular myocytes and trabeculae. Enoximone-induced dose-dependent increases in peak [Ca2+]i, diastolic [Ca2+]i, T50, and T75. ATI22-107 demonstrated similar dose-dependent increases in peak [Ca2+]i at 300 nM and 1.0 μM doses, with no further increases at higher doses. Throughout the dosing range, ATI22-107 induced much smaller, if any, increases in diastolic [Ca2+]i, T25, and T75. Current measurement of LTCC via patch-clamp techniques revealed dose-dependent decreases in LTCC current with an increasing dose of ATI22-107, thereby validating the dual functionality of the drug that has been proposed in this study. Studies in isolated trabeculae demonstrated that enoximone-induced a dose-dependent augmentation of the entire force-frequency relation in normal myocardium, whereas augmentation of contractility was only observed at lower stimulation frequencies with ATI22-107. These results demonstrate the effects of the LTCC-antagonizing moiety of ATI22-107 and suggest that the novel simultaneous combination of PDE-III and LTCC inhibition by one mol. may produce a favorable profile of limited inotropy without detrimental effects of increased diastolic [Ca2+]i.

IT **681816-57-9**, ATI 22-107
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacol. effects of ATI22-107, a dual pharmacophore, on myocyte calcium cycling and contractility)

L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
RN 681816-57-9 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-2-[[2-[[[2-chloro-4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethoxy]methyl]-1,4-dihydro-6-methyl-, dimethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

own work

L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:333708 CAPLUS
DOCUMENT NUMBER: 140:357211
TITLE: Dihydropyridine compounds having simultaneous ability to block L-type calcium channels and to inhibit phosphodiesterase type 3 activity, and their preparation, pharmaceutical compositions, and use
INVENTOR(S): Hamilton, Gregory S.; Leighton, Harry Jefferson
PATENT ASSIGNEE(S): Artesian Therapeutics, Inc., USA
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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     PATENT NO.          KIND    DATE          APPLICATION NO.          DATE
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     WO 2004033444        A1     20040422      WO 2003-US31592          20031007
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2501534           AA     20040422      CA 2003-2501534          20031007
     US 2004242648        A1     20041202      US 2003-679303           20031007
     EP 1554267           A1     20050720      ~~EP 2003-759728~~           20031007
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     BR 2003015103        A      20050816      BR 2003-15103            20031007
     NO 2005002169        A      20050608      NO 2005-2169             20050503
PRIORITY APPLN. INFO.:                         US 2002-416254P      P   20021007
                                               ~~WO 2003-US31592~~      W   20031007
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OTHER SOURCE(S): MARPAT 140:357211
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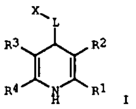
L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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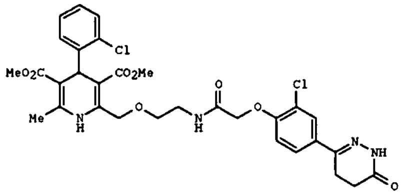


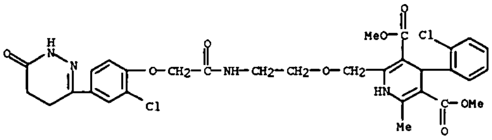
II

AB The invention provides compds. that possess inhibitory activity against PDE-3 and L-type calcium channels. The invention further provides pharmaceutical compns. comprising the compds., and methods of using them for treatment of cardiovascular disease, stroke, epilepsy, ophthalmic disorders, or migraine. In particular, compds. I and their pharmaceutically acceptable equivalent, isomers, and mixts. of isomers are disclosed [wherein: R1, R4 = H, halo, nitro, cyano, CF3, amino, NR5R6, C1-C4 alkoxy, C1-C4 alkylthio, C1-C8 alkyl, C2-C8 alkenyl, or C2-C8 alkynyl, wherein one or more CH2 group(s) of the alk(en/yn)yl is/are optionally replaced with O, S, SO2, and/or NR5, and optionally substituted with one or more :O and/or OH; R5, R6 = H, C1-C8 alkyl, C2-C8 alkenyl or C2-C8 alkynyl, wherein the alk(en/yn)yl is optionally substituted with Ph or substituted phenyl; R2, R3 = COOR7, nitro, cyano or CF3; R7 = C1-C5 alkyl, C2-C8 alkenyl or C2-C8 alkynyl, wherein the alk(en/yn)yl is optionally substituted with C1-C4 alkoxy or NR5R6; L = bond, C1-C12 alkylene, C2-C12 alkenylene or C2-C12 alkynylene, wherein one or more CH2 group(s) of the alk(en/yn)ylene is/are optionally replaced with O, S, SO2 and/or NR5 and optionally substituted with one or more :O or OH; and X = various R-substituted N-containing heterocyclic moieties; with X connected to L through any one R; R = (independently) bond, H, halo, nitro, cyano, CF3, amino, -NR5R6, C1-C4 alkoxy, C1-C4 alkylthio, COOR7, C1-C2 alkyl, C2-C12 alkenyl or C2-C12 alkynyl, wherein one or more CH2 group(s) of the alk(en/yn)yl is/are optionally replaced with O, S, SO2 and/or NR5 and optionally substituted with one or more :O or OH; provided that when X = quinolin-2(1H)-one or its 3,4-dihydro derivative and L = bond, then L is connected to the Ph ring of A.]. For instance, the di-Me ester analog of amlodipine (preparation in 3 steps given) and the corresponding carboxylic acid (preparation in 4 steps given) were amidated using EDC and HOAt in DMF to give

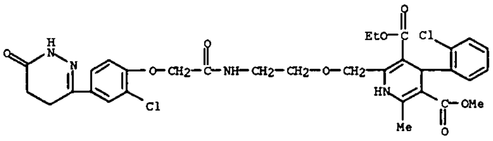
L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
a 34% yield of invention compd. II. This compd. blocked rat cerebral L-type calcium channels in vitro with an IC50 of 630 nM, and inhibited human platelet cAMP PDE-3 in vitro with an IC50 of 80 nM. In a paced dog model of congestive heart failure, II gave a dose-dependent response for contractility and ejection fraction with a maximal increase of 53-61% of that produced by milrinone. However, in contrast to milrinone, which gave ventricular tachycardia at all tested dosages, II gave none; II also gave no apparent QT prolongation. The data show that simultaneous antagonism of the L-type calcium channel activity by II antagonized the increase in calcium influx into the cardiac myocyte via the hyper-phosphorylated L-type calcium channel, and thus prevented the toxicities assocd. with higher levels of PDE-3 inhibition.

IT **681816-57-9P 681816-58-0P 681816-64-8P**
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of dihydropyridine compds. as simultaneous L-type calcium channel blockers and PDE-3 inhibitors)

RN 681816-57-9 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-2-[[2-[[[2-chloro-4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethoxy]methyl]-1,4-dihydro-6-methyl-, dimethyl ester (9CI) (CA INDEX NAME)

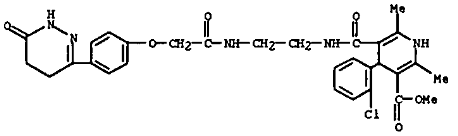


RN 681816-58-0 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-2-[[2-[[[2-chloro-4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethoxy]methyl]-1,4-dihydro-6-methyl-, 3-ethyl 5-methyl ester (9CI) (CA INDEX NAME)



RN 681816-64-8 CAPLUS

L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
CN 3-Pyridinecarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[2-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

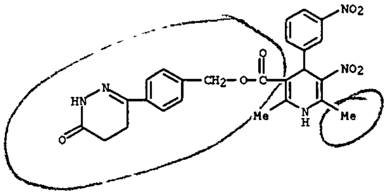
L4 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:478687 CAPLUS
DOCUMENT NUMBER: 122:230448
TITLE: Effects of different inotropes with antioxidant properties on acute regional myocardial ischemia in isolated rabbit hearts
AUTHOR(S): Rump, A. F. E.; Schuessler, M.; Acar, D.; Cordes, A.; Ratke, R.; Theisohn, M.; Roesen, R.; Klaus, W.; Frickle, U.
CORPORATE SOURCE: Institut Pharmakologie, Univ. Koeln, Koeln, Germany
SOURCE: General Pharmacology (1995), 26(3), 603-11
CODEN: GEPHDP; ISSN: 0306-3623
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The antiischemic properties of the flavonoids acetylvitexin-rhamnoside (AVR) and luteolin-7-glucoside (LUT), combining phosphodiesterase (PDE)-inhibitory and antioxidant properties, were studied in comparison to amrinone (AMR) or superoxide dismutase (SOD). The effects of the new dihydropyridine-type calcium-agonist Bay T 5006 were studied in comparison to Bay K 8644. In isolated Langendorff-rabbit hearts perfused at constant pressure, acute regional ischemia (MI) was induced by coronary artery occlusion (CAO) and quantitated from epicardial NADH-fluorescence photog. Drugs were applied either before or after CAO (pre-treatment or treatment) to permit distinguishing the influence of functional and direct cytoprotective actions in the poorly collateralized rabbit hearts. SOD did not affect left ventricular pressure (LVP) or coronary flow (CF) and reduced MI only is applied before CAO. LVP and CF were enhanced by LUT or AMR but not by AVR. MI was reduced to a similar extent in hearts treated with either drug. Cardioprotection by LUT was not improved by starting drug application before CAO. Bay K 8644 reduced LVP and particularly CF, whereas Bay T 5006 did not affect functional parameters. MI was enlarged by Bay K 8644 and remained unaffected by treatment or pretreatment with Bay T 5006. AMR, LUT and AVR possess antiischemic properties related to an improvement of myocardial perfusion. Although oxygen free radicals contribute to ischemic tissue injury, as shown by the cardioprotective effectiveness of SOD, antioxidant properties of the flavonoids LUT and AVR do not seem to be relevant for the antiischemic effects. The findings also give no evidence for antioxidant properties of dihydropyridines relevant for cardioprotection.

IT **119199-59-6, Bay T 5006**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of different inotropes with antioxidant properties on acute regional myocardial ischemia in isolated rabbit hearts)

RN 119199-59-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(3-nitrophenyl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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L4   ANSWER 4 OF 15  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1995:214081  CAPLUS
DOCUMENT NUMBER:          122:10047
TITLE:                    Preparation of circulation-active
                          (dioxyalkylenearyl)dihydropyridines
INVENTOR(S):              Franckowiak, Gerhard; Marhold, Albrecht; Bechem,
                          Martin; Gross, Rainer; Kayser, Michael; Schramm,
                          Matthias; Thomas, Guenther
PATENT ASSIGNEE(S):       Bayer A.-G., Germany
SOURCE:                   U.S., 14 pp. Cont.-in-part of U.S. Ser. No. 814,213,
                          abandoned.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.          KIND   DATE       APPLICATION NO.          DATE
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     US 5344944           A     19940906   US 1993-116414           19930903
     DE 3716652           A1    19881208   DE 1987-3716652          19870519
     US 4886816           A     19891212   US 1988-190748           19880505
PRIORITY APPLN. INFO.:                     DE 1987-3716652       A  19870519
                                           US 1988-190748        A3 19880505
                                           US 1989-431942        B1 19891106
                                           US 1991-644857        B1 19910122
                                           US 1991-814213        B2 19911219
OTHER SOURCE(S):          CASREACT 122:10047; MARPAT 122:10047
GI
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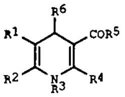

I

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AB   Title compds. I (R1 = H, NC, O2N, R7O2C wherein R7 = H, (substituted)
     C1-16 alkyl or cycloalkyl or alkenyl and optionally interrupted be O, S,
     bond; R2, R4 = C1-8 cycloalkyl, Ph, PhCH2, substituted C1-6 alkyl, etc.;R3
     = H, (substituted) C1-4 alkyl optionally interrupted by O; R5 = C1-8 alkyl
     or cycloalkyl, R8O wherein R8 = H, C1-16 alkyl or alkenyl or cycloalkyl
     optionally interrupted by O and optionally substituted, etc.; R6 =
     substituted heterocyclyl) are prepared  Also prepared was the intermediate
     2,2-difluoro-4-formyl-1,3-benzodioxole.  The activity of I was
     demonstrated by the influence of contraction force of the heart and tone
     of smooth muscle.  Me β-aminocrotonate and 2,2,3-trifluoro-1,4-
     benzodioxan-6-ylcarbaldehyde (preparation given) were refluxed for 12 h to
give
     I (R1 = MeO2C, R2 = R4 = Me, R3 = H, R5 = MeO, R6 = 2,2,3-trifluoro-1,4-
     benzodioxan-6-yl).
IT   119895-67-9P 119922-98-4P
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L4   ANSWER 4 OF 15  CAPLUS  COPYRIGHT 2006 ACS on STN      (Continued)
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of circulation-active (dioxyalkylenearyl)dihydropyridines)
RN   119895-67-9  CAPLUS
CN   3-Pyridinecarboxylic acid, 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1,4-
     dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-
     pyridazinyl)phenyl]methyl ester (9CI)  (CA INDEX NAME)
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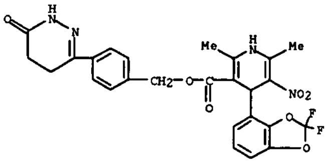

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RN   119922-98-4  CAPLUS
CN   3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(2,2,3-
     trifluoro-2,3-dihydro-1,4-benzodioxin-5-yl)-, [4-(1,4,5,6-tetrahydro-6-oxo-
     3-pyridazinyl)phenyl]methyl ester (9CI)  (CA INDEX NAME)
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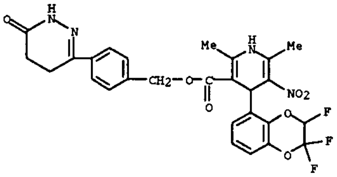

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L4   ANSWER 5 OF 15  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1994:449827  CAPLUS
DOCUMENT NUMBER:          121:49827
TITLE:                    Comparative effects of the dihydropyridine-type
                          calcium agonists (-)-S-Bay K 8644, (±)-Bay-W 5035
                          and (±)-Bay-T 5006 on human platelet aggregability
AUTHOR(S):                Rump, A. F. E.; Boller, M.; Berkels, R.; Roesen, R.;
                          Fricke, U.; Klaus, W.
CORPORATE SOURCE:         Inst. Pharmakol., Univ. Koln, Cologne, Germany
SOURCE:                   Gen. Pharmacol. (1994), 25(3), 447-50
                          CODEN: GEPHDP; ISSN: 0306-3623
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Human platelet aggregation induced by collagen is concentration-dependently
     inhibited by dihydropyridine (DHP)-type calcium agonists.  There was no
     significant difference between the maximal anti-aggregatory effects or the
     anti-aggregatory potencies of (-)-S-Bay-K 8644 (EC50: 5.3 ± 1.5 +
     10-5 M), (±)-Bay-W 5035 (EC50: 14.9 ± 8.8 + 10-5 M) or
     (±)-Bay-T 5006 (EC50: 2.7 ± 1.9 + 10-5 M) (P > 0.05).
     Antiaggregatory effects of DHP-type Ca agonists seem to be independent of
     Ca channel activation.
IT   119199-59-6, Bay-T 5006
     RL: BIOL (Biological study)
        (antiaggregatory effects of dihydropyridine-type calcium agonist)
RN   119199-59-6  CAPLUS
CN   3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(3-
     nitrophenyl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl
     ester (9CI)  (CA INDEX NAME)
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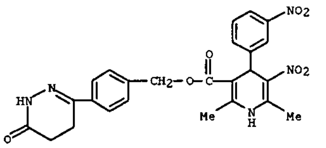

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L4   ANSWER 6 OF 15  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1993:551876  CAPLUS
DOCUMENT NUMBER:          119:151876
TITLE:                    Influence of (-)-S-BAY K 8644, (±)-BAY W 5035 and
                          (±)-BAY T 5006 on hemodynamics and FITC-dextran 3
                          elution kinetics in isolated rat hearts
AUTHOR(S):                Rump, A. F. E.; Ratke, R.; Fricke, U.; Klaus, W.
CORPORATE SOURCE:         Inst. Pharmakol., Univ. Koeln, Cologne, D-5000,
                          Germany
SOURCE:                   General Pharmacology (1993), 24(3), 631-6
                          CODEN: GEPHDP; ISSN: 0306-3623
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   The authors investigated the effects of the new calcium agonists
     (±)-Bay W 5035 and (±)-Bay T 5006 in comparison to (-)-S-Bay K 8644
     on hemodynamics and epimyocardial perfusion in Langendorff rat hearts.  At
     equieffective inotropic concentration, vasoconstriction of coronary
resistance
     vessels was significantly less after (±)-Bay W 5035 or (±)-Bay T
     5006 than after (-)-S-Bay K 8644 application.  FITC-dextran 3 elution
     kinetics indicated that the epimyocardial vascular volume was significantly
     reduced only by (-)-S-Bay K 8644.  Moreover, (-)-S-Bay K 8644 enhanced
     transcoronary exchange more markedly than (±)-Bay W 5035 or (±)-Bay
     T 5006, reflecting the differences in coronary constrictor activity.
     Thus, in comparison to (-)-S-Bay K 8644 the relation between inotropy and
     vasoconstriction is more favorable for (±)-Bay W 5035 or (±)-Bay T
     5006.
IT   119199-59-6, BAY-T 5006
     RL: BIOL (Biological study)
        (as calcium antagonist, coronary circulation and inotropic response to,
        heart failure treatment in relation to)
RN   119199-59-6  CAPLUS
CN   3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(3-
     nitrophenyl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl
     ester (9CI)  (CA INDEX NAME)
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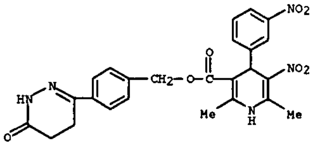

L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:511631 CAPLUS
DOCUMENT NUMBER: 117:111631
TITLE: Preparation of pyridazinone-substituted (ethynylphenyl)dihydropyridine derivatives for treatment of circulatory organ diseases
INVENTOR(S): Nakanishi, Michio; Uchida, Katsuhiro; Nakano, Jun; Nagahara, Michiko; Tanaka, Kiyomi; Yajima, Motoyuki; Nakagawa, Terutake; Murata, Takahiko
PATENT ASSIGNEE(S): Kaken Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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     PATENT NO.          KIND  DATE      APPLICATION NO.       DATE
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     WO 9206087           A1   19920416  WO 1991-JP1316        19910930
         W:  CA, JP, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
     EP 503079            A1   19920916  EP 1991-916784        19910930
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
PRIORITY APPLN. INFO.:                   JP 1990-266034     A  19901002
                                         WO 1991-JP1316     W  19910930
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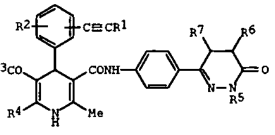
OTHER SOURCE(S): MARPAT 117:111631

GI



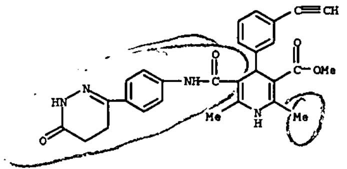
I

AB The title compds. [I; R1 = H, alkyl, alkoxycarbonyl, aminoalkyl, hydroxyalkyl, (un)substituted Ph; R2 = H, alkoxy, halo, R3 = alkylamino, alkoxyalkoxy; R4 = alkyl, amino; R5-R7 = H, alkyl], also useful for treatment of thrombosis and renal disease, are prepared Thus, 3-HC.tplbond.CC6H4CHO 0.5, Me 3-aminocrotonate 0.46, and acetoacetic acid N-[4-(6-oxo-1,4,5,6-tetrahydropyridazinon-3-yl)phenyl]amide 1.09 g were dissolved in isopropanol under heating and then refluxed for 3 h to give 52% I (C.tplbond.CR1 = 3-C.tplbond.CH, R2 = R5-R7 = H, R3 = OMe, R4 = Me) (II). II in vitro inhibited 94% ADP- and collagen-induced rabbit blood platelet aggregation at 10-5 and 10-6M, resp. I also showed antihypertensive, antiulcer, antihypoxia, and antinorepinephrine activities and inhibited puromycin aminonucleoside-induced kidney disorder. Granules, capsules, tablets, an ointment, and an injection solution containing II were formulated.

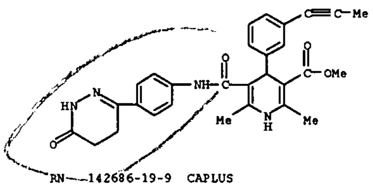
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

IT 142686-17-7P 142686-18-8P 142686-19-9P
142686-20-2P 142686-21-3P 142686-22-4P
142686-23-5P 142686-24-6P 142686-25-7P
142686-26-8P 142686-27-9P 142686-28-0P
142686-31-5P 142686-32-6P 142686-33-7P
142686-34-8P 142686-35-9P 142686-36-0P
142686-37-1P 142686-38-2P 142686-39-3P
142686-40-6P 142686-41-7P 142686-42-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as cardiovascular and renal agent)

RN 142686-17-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

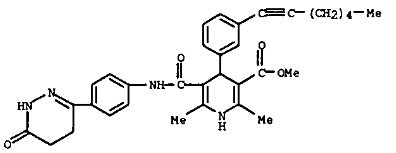


RN 142686-18-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[3-(1-propynyl)phenyl]-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

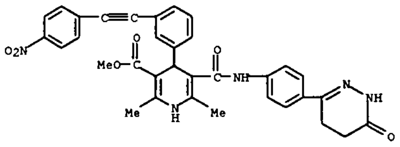


RN 142686-19-9 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-[3-(1-heptynyl)phenyl]-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

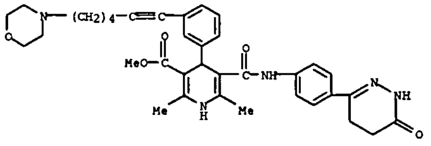
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-20-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[3-[(4-nitrophenyl)ethynyl]phenyl]-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

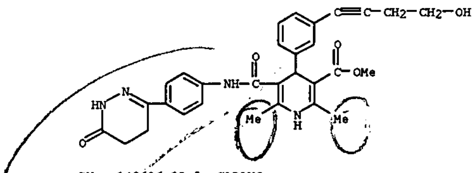


RN 142686-21-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[3-[6-(4-morpholinyl)-1-hexynyl]phenyl]-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

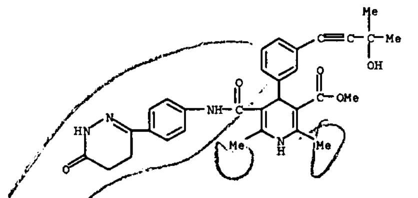


RN 142686-22-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-[3-(4-hydroxy-1-butynyl)phenyl]-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

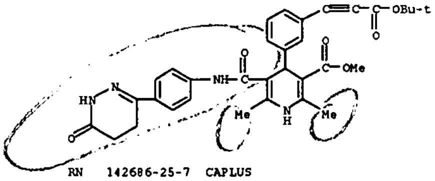
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-23-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-[3-(3-hydroxy-3-methyl-1-butynyl)phenyl]-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

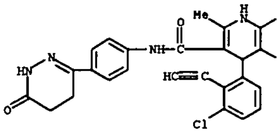


RN 142686-24-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-[3-[3-(1,1-dimethylethoxy)-3-oxo-1-propynyl]phenyl]-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

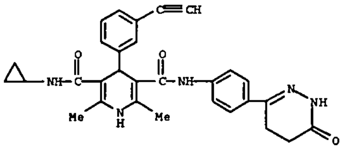


RN 142686-25-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-chloro-2-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

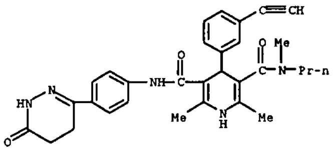
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-26-8 CAPLUS
CN 3,5-Pyridinedicarboxamide, 2-amino-N3-cyclopropyl-4-(3-ethynylphenyl)-1,4-dihydro-6-methyl-N5-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

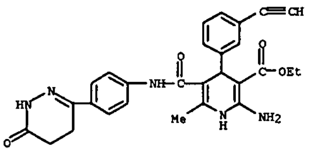


RN 142686-27-9 CAPLUS
CN 3,5-Pyridinedicarboxamide, 4-(3-ethynylphenyl)-1,4-dihydro-N3,2,6-trimethyl-N3-propyl-N5-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

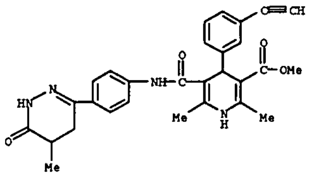


RN 142686-28-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 2-amino-4-(3-ethynylphenyl)-1,4-dihydro-6-methyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

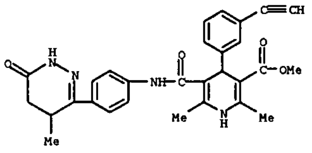
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-31-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-5-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

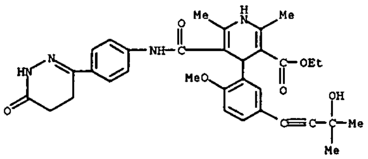


RN 142686-32-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

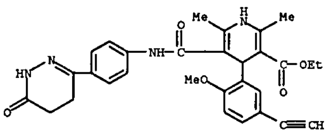


RN 142686-33-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-[5-(3-hydroxy-3-methyl-1-butynyl)-2-methoxyphenyl]-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

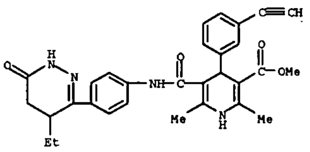
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-34-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(5-ethynyl-2-methoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

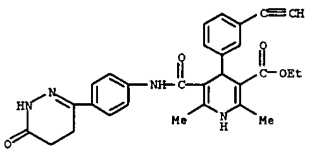


RN 142686-35-9 CAPLUS
CN 3-Pyridinecarboxylic acid, 5-[[[4-(4-ethyl-1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-, methyl ester (9CI) (CA INDEX NAME)

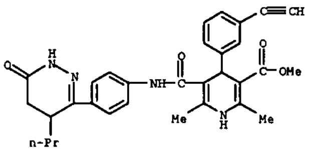


RN 142686-36-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

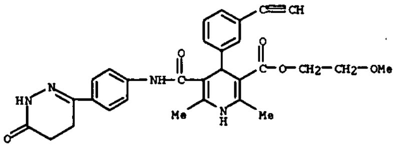
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-37-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-4-propyl-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

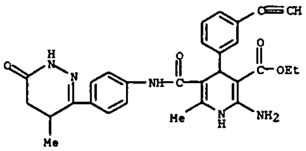


RN 142686-38-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-ethynylphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)

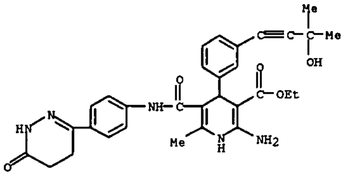


RN 142686-39-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 2-amino-4-(3-ethynylphenyl)-1,4-dihydro-6-methyl-5-[[[4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

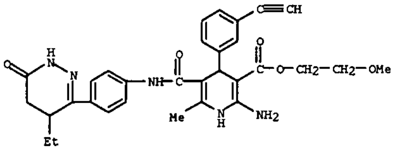
L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 142686-40-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 2-amino-1,4-dihydro-4-[3-(3-hydroxy-3-methyl-1-butynyl)phenyl]-6-methyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

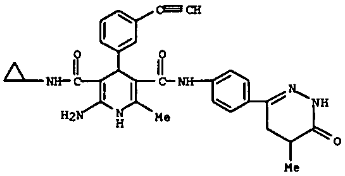


RN 142686-41-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 2-amino-5-[[[4-(4-ethyl-1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-(3-ethynylphenyl)-1,4-dihydro-6-methyl-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



RN 142686-42-8 CAPLUS
CN 3,5-Pyridinedicarboxamide, 2-amino-N3-cyclopropyl-4-(3-ethynylphenyl)-1,4-dihydro-6-methyl-N5-[4-(1,4,5,6-tetrahydro-5-methyl-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:407812 CAPLUS
DOCUMENT NUMBER: 117:7812
TITLE: Preparation of 4-aryl-1,4-dihydropyridine-3,5-dicarboxylates as vasodilators
INVENTOR(S): Wheeler, Thomas N.; Kenakin, Terrence P.
PATENT ASSIGNEE(S): Glaxo Inc., USA
SOURCE: U.S., 16 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
	US 5100892	A	19920331	US 1990-613182		19901113
	US 5258519	A	19931102	US 1991-805604		19911210
PRIORITY APPLN. INFO.:				US 1990-613182	A3	19901113

OTHER SOURCE(S): MARPAT 117:7812
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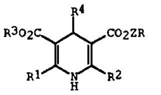

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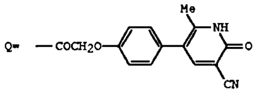
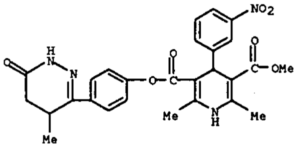
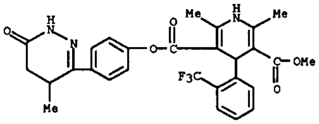


AB Title compds. [I; R = (substituted)-1,2-dihydro-2-oxo-5-pyridinylphenyl, -2,3,4,5-tetrahydro-3-oxo-6-pyridazinylphenyl; R1, R2 = (substituted)(cyclo)alkyl; R3 = (cyclo)alkyl, -alkenyl; R4 = (substituted) aryl; Z = bond, (CR5R6)nO, CR7R8CR9R10NR11CO(CR12R13)yO; R5-R13 = H, alkyl; n, y = 1-6] were prepared Thus, (±)-I (R1-R3 = Me, R4 = 2,3-Cl2C6H3, Z = CH2CH2) (II; R = NH2) was condensed with R17OH (R17 = pyridonylphenoxyacetyl group Q) to give II (R = NHQ) which gave 12.5% reduction of mean blood pressure in rats at 0.3 mg/kg i.v.
IT **141775-42-0P 141775-45-3P 141775-46-4P**
141775-48-6P 141775-52-2P 141775-59-9P
141775-60-2P 141775-61-3P 141775-62-4P
141775-63-5P 141789-97-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as vasodilator)
RN 141775-42-0 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, methyl 4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenyl ester (9CI) (CA INDEX NAME)

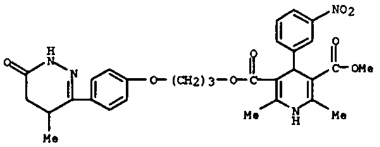
L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 141775-45-3 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[2-(trifluoromethyl)phenyl]-, methyl 4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenyl ester (9CI) (CA INDEX NAME)

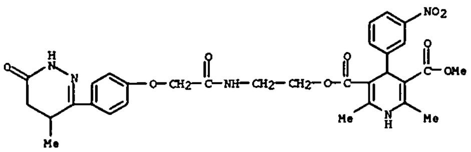


RN 141775-46-4 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, methyl 3-[4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenoxy]propyl ester (9CI) (CA INDEX NAME)



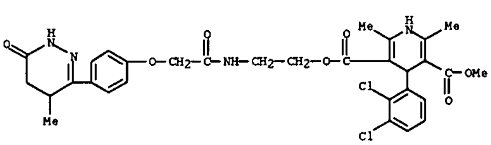
RN 141775-48-6 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, methyl 2-[[[4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



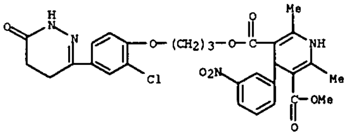
RN 141775-52-2 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-, methyl 2-[[[4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)



RN 141775-59-9 CAPLUS

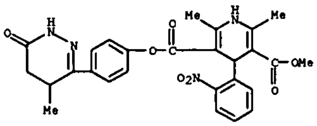
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, 3-[2-chloro-4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]propyl methyl ester (9CI) (CA INDEX NAME)



RN 141775-60-2 CAPLUS

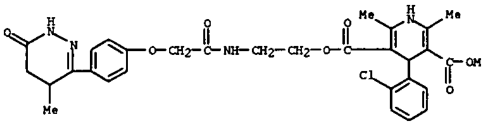
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-, methyl 4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



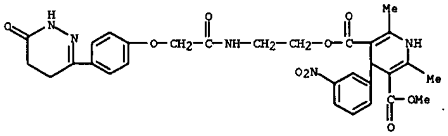
RN 141775-61-3 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-, methyl 2-[[[4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)



RN 141775-62-4 CAPLUS

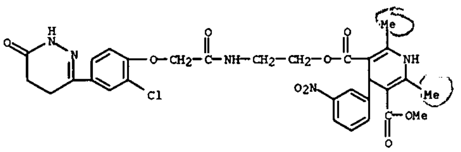
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, methyl 2-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)



RN 141775-63-5 CAPLUS

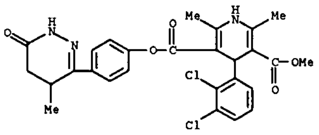
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, 2-[[[2-chloro-4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenoxy]acetyl]amino]ethyl methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 141789-97-1 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-, methyl 4-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)phenyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

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ACCESSION NUMBER:         1989:553638  CAPLUS
DOCUMENT NUMBER:          111:153638
TITLE:                    Preparation of 4-aryldihydropyrid-3-yl ethers as
                          cardiovascular agents
INVENTOR(S):              Franckowiak, Gerhard; Bechem, Martin; Gross, Rainer;
                          Hebisch, Siegfried; Schramm, Matthias
PATENT ASSIGNEE(S):       Bayer A.-G., Fed. Rep. Ger.
SOURCE:                   Eur. Pat. Appl., 15 pp.
                          CODEN: EPXXDW
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE       APPLICATION NO.        DATE
     ---------------     ----   --------   --------------------   --------
     EP 308785            A2    19890329   EP 1988-114979         19880914
     EP 308785            A3    19891102
     EP 308785            B1    19920513
         R:  AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE
     DE 3732380           A1    19890406   DE 1987-3732380        19870925
     AT 76067             E     19920515   AT 1988-114979         19880914
     ES 2037166           T3    19930616   ES 1988-114979         19880914
     US 4886804           A     19891212   US 1988-249391         19880920
     JP 01102063          A2    19890419   JP 1988-236641         19880922
PRIORITY APPLN. INFO.:                     DE 1987-3732380     A  19870925
                                           EP 1988-114979      A  19880914
OTHER SOURCE(S):          CASREACT 111:153638; MARPAT 111:153638
GI
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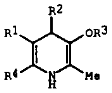

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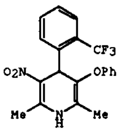


II

AB The title compds. [I; R1 = cyano, NO2, CO2R5; R2 = (un)substituted aryl; R3 = aryl, alkyl, cycloalkyl; R4 = alkyl, NH2; R5 = (un)substituted cycloalkyl, oxacycloalkyl] were prepared 2-(F3C)C6H4CHO was stirred 3 days with PhOCH2COMe in aqueous NaOH to give 2-(F3C)C6H4CH:C(OPh)COMe which reacted with O2NCH2C(:NH)Me to give title compound II which gave a 30% increase in isolated guinea pig heart contractility at 10-1 (no units).

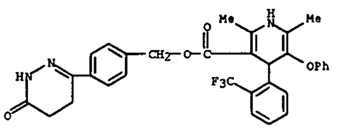
IT **122997-12-0P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as cardiovascular agent)

RN 122997-12-0 CAPLUS

CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-phenoxy-4-[2-(trifluoromethyl)phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:497086 CAPLUS
DOCUMENT NUMBER: 111:97086
TITLE: Preparation of 1,4-dihydro-5-nitro-3-pyridinecarboxylates as antithrombotics and cardiotonics
INVENTOR(S): Franckowiak, Gerhard; Bechem, Martin; Kayser, Michael; Gross, Rainer; Schramm, Matthias; Seuter, Friedel; Perzborn, Elisabeth; Thomas, Guenther
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 17 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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     PATENT NO.          KIND   DATE       APPLICATION NO.        DATE
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     DE 3724909           A1    19890209   DE 1987-3724909        19870728
     US 4898865           A     19900206   US 1988-218759         19880713
     EP 308608            A1    19890329   EP 1988-111484         19880716
         R:  AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE
     JP 01168683          A2    19890704   JP 1988-185708         19880727
PRIORITY APPLN. INFO.:                     DE 1987-3724909     A  19870728
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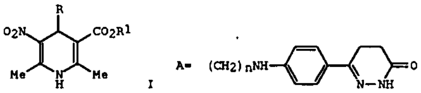
OTHER SOURCE(S): CASREACT 111:97086; MARPAT 111:97086
GI

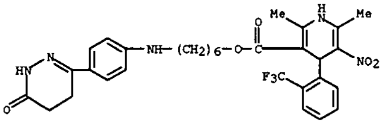


AB The title compds. [I; R = (un)substituted C6-12 aryl, PhCH2, PhCH2O, PhCH2S, optionally benzo-fused 5- or 6-membered heterocyclyl containing ≥1 N, O, S; R1 = anilinoalkyl moiety A; n = 1-12] and their physiol. acceptable salts were prepared as antithrombotics and cardiovascular agents by cyclocondensation of RCHO or MeCOC(NO2):CHR with H2NCMe:CHCO2A (II) or of MeCOCH2CO2A (III) or MeCOC(CO2A):CHR (IV) with H2NCMe:CHNO2. Alkylation of p-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)aniline with 3-bromopropyl tetrahydropyranyl ether, followed by deprotection gave HOA (n = 3), which was esterified with CH2:C:O to give MeCOCH2CO2A (n = 3). This was treated with NH3 in THF in the presence of 4-MeC6H4SO3H to give H2NCMe:CHCO2A. The latter was heated 10 h at 60° with MeCOC(NO2):CHC6H4(OCH2Ph)-2 in Me2CHOH to give I [R = 2-(PhCH2O)C6H4, R1 = A, n = 3]. In isolated guinea pig heart 10-6 g II/L increased left ventricular contraction strength 40% and reduced perfusion pressure 26%.

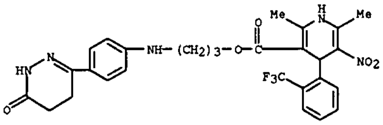
IT **122036-35-5P 122036-37-7P 122036-38-8P**
122036-39-9P 122036-41-3P 122036-42-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as cardiovascular agent)

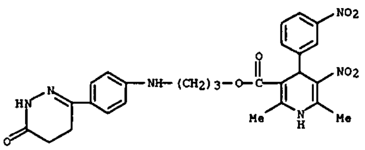
RN 122036-35-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-, 6-[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]hexyl ester (9CI) (CA INDEX NAME)



RN 122036-37-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-, 3-[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]propyl ester (9CI) (CA INDEX NAME)

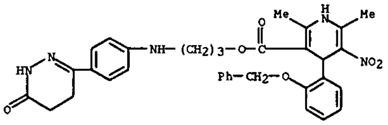


RN 122036-38-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(3-nitrophenyl)-, 3-[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]propyl ester (9CI) (CA INDEX NAME)

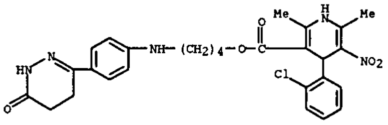


RN 122036-39-9 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(phenylmethoxy)phenyl]-, 3-[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]propyl ester (9CI) (CA INDEX NAME)

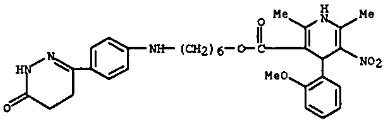
L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 122036-41-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-, 4-[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]butyl ester (9CI) (CA INDEX NAME)



RN 122036-42-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-nitro-, 6-[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]hexyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

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ACCESSION NUMBER:         1989:154161  CAPLUS
DOCUMENT NUMBER:          110:154161
TITLE:                    Preparation of [(alkylenedioxy)aryl]dihydropyridines
                          as cardiovascular agents
INVENTOR(S):              Franckowiak, Gerhard; Marhold, Albrecht; Bechem,
                          Martin; Gross, Rainer; Kayser, Michael; Schramm,
                          Matthias; Thomas, Guenther
PATENT ASSIGNEE(S):       Bayer A.-G., Fed. Rep. Ger.
SOURCE:                   Eur. Pat. Appl., 32 pp.
                          CODEN: EPXXDW
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.          KIND    DATE          APPLICATION NO.        DATE
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     EP 291799            A2     19881123      EP 1988-107382         19880507
     EP 291799            A3     19891220
     EP 291799            B1     19930616
         R:  AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE
     DE 3716652           A1     19881208      DE 1987-3716652        19870519
     AT 90676             E      19930715      AT 1988-107382         19880507
     ES 2058173           T3     19941101      ES 1988-107382         19880507
     JP 63303980          A2     19881212      JP 1988-119453         19880518
     JP 2558326           B2     19961127
     JP 08245613          A2     19960924      JP 1995-289429         19951011
     JP 2721822           B2     19980304
PRIORITY APPLN. INFO.:                         DE 1987-3716652     A  19870519
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OTHER SOURCE(S):          MARPAT 110:154161
GI
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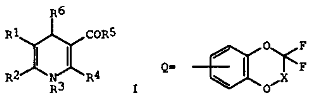

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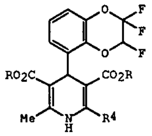


II

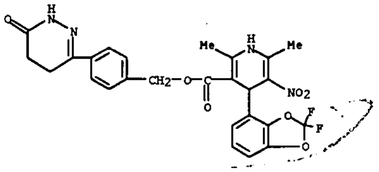
L4 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

AB The title compds. [I; R1 = H, cyano, NO2, (un)substituted CO2H; R2,R4 = HCO, cyano, Ph, PhCH2, (un)substituted alkyl, cycloalkyl; R3 = H, (un)substituted alkyl, alkoxyalkyl; R5 = alkyl, OR8, R8 = H, (un)substituted alkyl; R6 = alkylenedioxyphenyl group Q; X = bond, CHF, CF2] were prepared R6CH:NBu (R6 = 2,2,3-trifluoro-1,4-benzodioxan-5-yl) was stirred 24 h with AcOCH2COCH2CO2Et in Ac2O to give R6CH:C(CO2Et)COCH2OAc which was refluxed 6 h with H2NCMe:CHCO2Et in EtOH to give title compound II (R = Et, R4 = CH2OAc). II (R = R4 = Me) gave a 100% reduction in ventricular contractile amplitude of isolated perfused guinea pig heart at 10-3 g/L.

IT **119895-67-9P 119922-98-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as cardiovascular agent)

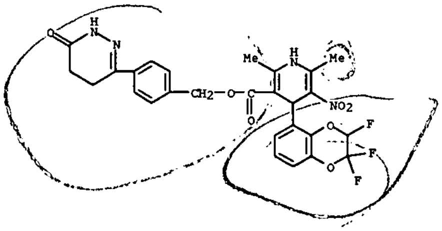
RN 119895-67-9 CAPLUS

CN 3-Pyridinecarboxylic acid, 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 119922-98-4 CAPLUS

CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(2,2,3-trifluoro-2,3-dihydro-1,4-benzodioxin-5-yl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

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ACCESSION NUMBER:         1989:95258  CAPLUS
DOCUMENT NUMBER:          110:95258
TITLE:                    Preparation of [(tetrahydropyridazinyl)phenyl]alkyl
                          1,4-dihydro-3-pyrdinecarboxylates as cardiovascular
                          agents
INVENTOR(S):              Franckowiak, Gerhard; Rosentreter, Ulrich; Perzborn,
                          Elisabeth; Seuter, Friedel; Kayser, Michael; Thomas,
                          Guenther
PATENT ASSIGNEE(S):       Bayer A.-G., Fed. Rep. Ger.
SOURCE:                   Ger. Offen., 23 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND    DATE          APPLICATION NO.        DATE
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     DE 3712371           A1     19881027      DE 1987-3712371        19870411
     EP 287866            A1     19881026      EP 1988-105148         19880330
         R:  AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE
     US 4876255           A      19891024      US 1988-178710         19880407
     JP 63258874          A2     19881026      JP 1988-85506          19880408
PRIORITY APPLN. INFO.:                         DE 1987-3712371     A  19870411
OTHER SOURCE(S):          CASREACT 110:95258; MARPAT 110:95258
GI
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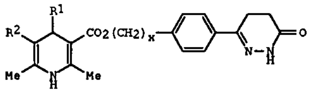


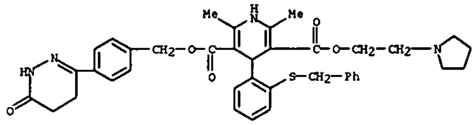
I

AB The title compds. [I; R1 = (substituted) C6-14 aryl, heterocyclyl, alkyl; R2 = cyano, acyl, carbamoyl, CO2H, PhCO, PhCH2CO, alkoxycarbonyl, etc.; x = 0-6] and their physiol. acceptable salts were prepared as cardiovascular agents. Isopropyl β-aminocrotonate and 4-(6-oxo-1,4,5,6-tetrahydro-3-pyridazinyl)benzyl 2-(o-chlorobenzylidine)acetoacetate were refluxed 8 h in Me2CHOH to give 73% I (R1 = 2-ClC6H4, R2 = Me2CHO2C, x = 1). I inhibited thromboxane A2 synthesis with min. inhibitory concns. of 0.1-1 μg/mL, while stimulating PGI2 synthesis with min. effective concns. of 0.1 to <3 μg/mL. I reduced contractile force in guinea pig hearts by 23-78% at 10-6 M.

IT **118973-13-0P 118973-15-2P 118973-23-2P**
118973-24-3P 118973-28-7P 118973-29-8P
118973-30-1P 119004-65-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as cardiovascular agent)

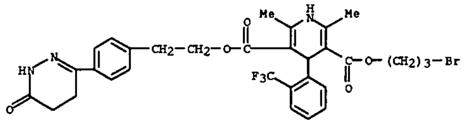
RN 118973-13-0 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[2-[(phenylmethyl)thio]phenyl]-, 2-(1-pyrrolidinyl)ethyl [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



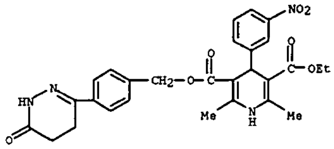
RN 118973-15-2 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[2-(trifluoromethyl)phenyl]-, 3-bromopropyl 2-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]ethyl ester (9CI) (CA INDEX NAME)



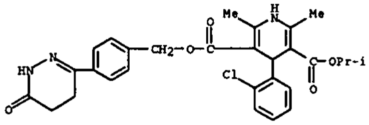
RN 118973-23-2 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-, ethyl [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



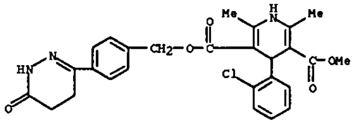
RN 118973-24-3 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-, 1-methylethyl [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



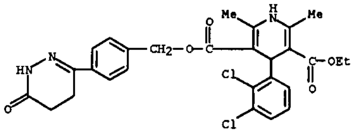
RN 118973-28-7 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-, methyl [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



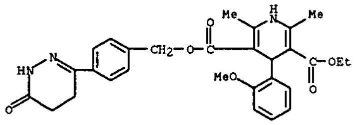
RN 118973-29-8 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-, ethyl [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 118973-30-1 CAPLUS

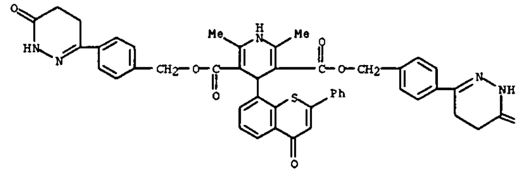
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-, ethyl [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 119004-65-8 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(4-oxo-2-phenyl-4H-1-benzothiopyran-8-yl)-, bis[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:95257 CAPLUS

DOCUMENT NUMBER: 110:95257

TITLE: Preparation and testing of 4-(6-oxo-1,4,5,6-tetrahydropyridazin-3-yl)benzyl 1,4-dihydro-5-nitropyridine-3-carboxylates as drugs

INVENTOR(S): Franckowiak, Gerhard; Kayser, Michael; Schramm, Matthias; Thomas, Guenther; Gross, Rainer; Perzborn, Elisabeth; Seuter, Friedel

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 19 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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     PATENT NO.          KIND   DATE       APPLICATION NO.         DATE
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     DE 3712369           A1    19881027   DE 1987-3712369         19870411
     EP 287867            A1    19881026   EP 1988-105149          19880330
         R:  AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE
     JP 63258875          A2    19881026   JP 1988-85507           19880408
     US 4876254           A     19891024   US 1988-179102          19880408
PRIORITY APPLN. INFO.:                     DE 1987-3712369     A   19870411
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OTHER SOURCE(S): CASREACT 110:95257; MARPAT 110:95257

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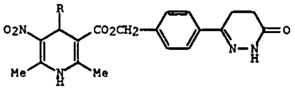


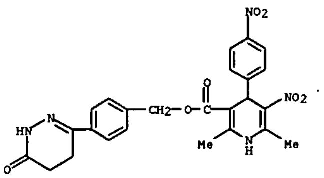
I

AB The title compds. [I; R = (substituted) aryl, heteroaryl, alkyl], useful as cardiovascular agents, were prepared 2-Nitro-1-(2-trifluoromethylphenyl)butan-3-one and 4-(6-oxo-1,4,5,6-tetrahydropyridazin-3-yl)benzyl β-aminocrotonate were refluxed 6 h in Me2CHOH to give 64% I (R = 4-O2NC6H4). I at 10-6 g/mL in isolated guinea pig hearts increased contractile force by 5-102%.

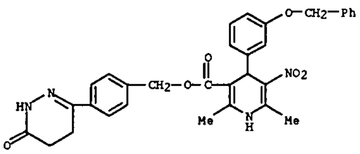
IT **119199-55-2P 119199-56-3P 119199-57-4P**
119199-58-5P 119199-59-6P 119199-60-9P
119199-61-0P 119199-62-1P 119199-63-2P
119199-64-3P 119199-65-4P 119199-66-5P
119199-67-6P 119199-68-7P 119199-69-8P
119199-71-2P 119199-72-3P 119199-73-4P
119199-74-5P 119199-75-6P 119199-77-8P
119199-78-9P 119199-79-0P 119199-80-3P
119199-83-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as cardiovascular agent)

RN 119199-55-2 CAPLUS

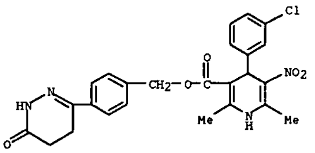
L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(4-nitrophenyl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



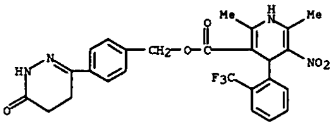
RN 119199-56-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[3-(phenylmethoxy)phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



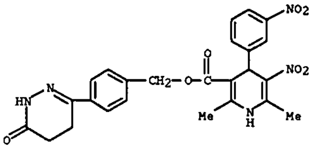
RN 119199-57-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



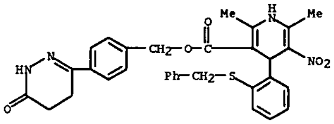
L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
RN 119199-58-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 119199-59-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(3-nitrophenyl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

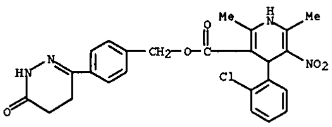


RN 119199-60-9 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-[(phenylmethyl)thio]phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

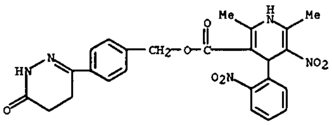


RN 119199-61-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester

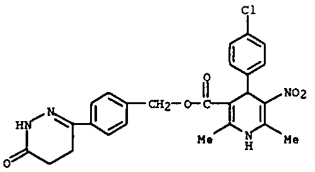
L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
(9CI) (CA INDEX NAME)



RN 119199-62-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(2-nitrophenyl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

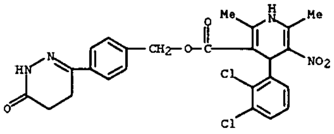


RN 119199-63-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

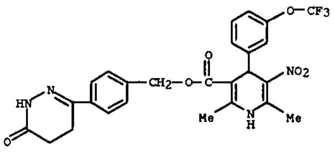


RN 119199-64-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

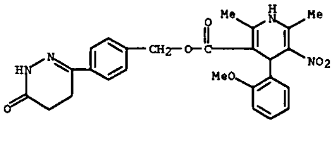
L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



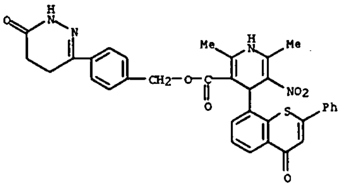
RN 119199-65-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[3-(trifluoromethoxy)phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



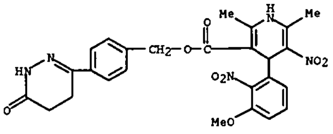
RN 119199-66-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



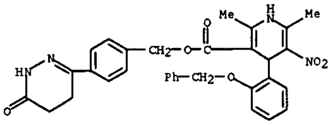
RN 119199-67-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(4-oxo-2-phenyl-4H-1-benzothiopyran-8-yl)-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



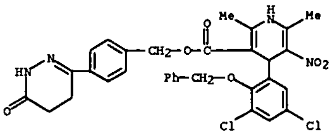
RN 119199-68-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(3-methoxy-2-nitrophenyl)-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



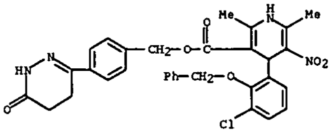
RN 119199-69-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(phenylmethoxy)phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



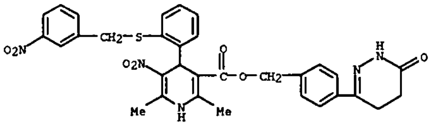
RN 119199-71-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-[3,5-dichloro-2-(phenylmethoxy)phenyl]-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



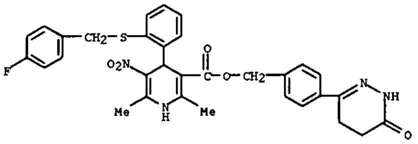
RN 119199-72-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-[3-chloro-2-(phenylmethoxy)phenyl]-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



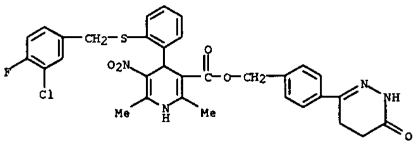
RN 119199-73-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-[[(3-nitrophenyl)methyl]thio]phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



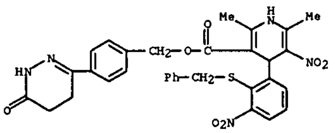
RN 119199-74-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-[2-[[(4-fluorophenyl)methyl]thio]phenyl]-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



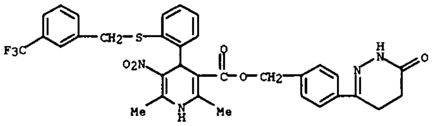
RN 119199-75-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-[2-[[(3-chloro-4-fluorophenyl)methyl]thio]phenyl]-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



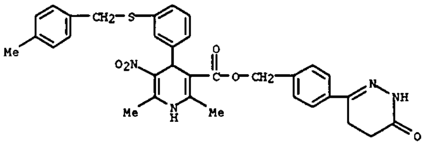
RN 119199-77-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[3-nitro-2-[(phenylmethyl)thio]phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



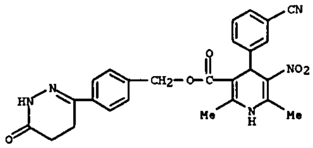
RN 119199-78-9 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-[[[3-(trifluoromethyl)phenyl]methyl]thio]phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 119199-79-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[3-[[(4-methylphenyl)methyl]thio]phenyl]-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

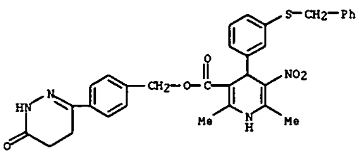


RN 119199-80-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-cyanophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)



RN 119199-83-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[3-[(phenylmethyl)thio]phenyl]-, [4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:552945 CAPLUS
DOCUMENT NUMBER: 105:152945
TITLE: Dihydropyridinecarboxamides
INVENTOR(S): Meyer, Horst; Franckowiak, Gerhard; Rosentreter, Ulrich; Gross, Rainer; Thomas, Guenter; Schramm, Matthias; Kayser, Michael; Seuter, Friedel; Perzborn, Elisabeth; Bechem, Martin
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 70 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3445852	A1	19860619	DE 1984-3445852		19841215
EP 185964	A2	19860702	EP 1985-115209		19851130
EP 185964	A3	19861203			
EP 185964	B1	19900228			
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE					
AT 50571	E	19900315	AT 1985-115209		19851130
US 4707479	A	19871117	US 1985-806057		19851205
AU 8551070	A1	19860619	AU 1985-51070		19851210
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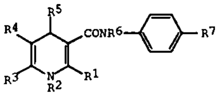
			EP 1985-115209	A	19851130

OTHER SOURCE(S): CASREACT 105:152945; MARPAT 105:152945
GI

L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



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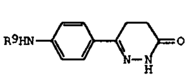

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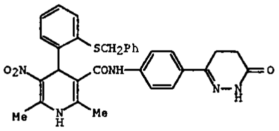

III

AB The title compds. [I; R1, R3 = cyano, (un)substituted alkyl; R2, R6 = H, alkyl; R4 = H, NO2, cyano, COR8, CO2R8, SO2R8; R5 = (un)substituted aryl, heteroaryl, alky, cycloalkyl; R7 = (un)substituted 1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl; R8 = (un)substituted hydrocarbyl; R3R8 = bond] were prepared as antithrombotics and cardiotonics. Thus, (aminophenyl)pyridazinone II (R9 = H) was acylated with diketene to give 79.2% II (R9 = COCH2COMe). This was treated with aqueous NH4OH to give 87%
II
(R9 = COCH:CMeNH2). The latter was cyclocondensed with 2-(PhCH2S)C6H4CHO and O2NCH2COMe to give 32% dihydropyridine III. Selected I showed inhibition of thrombocyte aggregation at 0.003-3 mg/L.

IT 104536-89-2P 104536-90-5P 104536-91-6P
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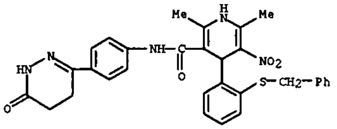
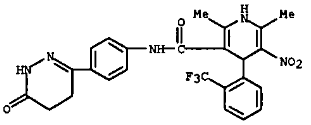
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as cardiotonic and antithrombotic)
RN 104536-89-2 CAPLUS

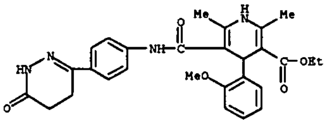
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-[(phenylmethyl)thio]phenyl]-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 104536-90-5 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]-4-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

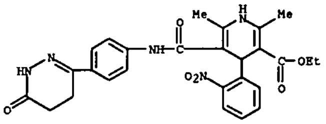


RN 104536-91-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

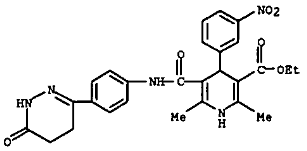


RN 104536-93-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

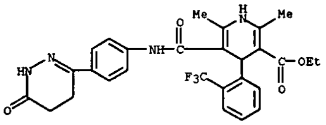
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104536-94-9 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

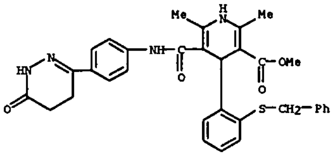


RN 104536-95-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

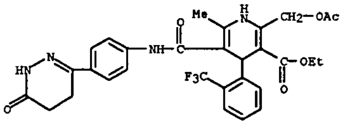


RN 104536-96-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[2-[(phenylmethyl)thio]phenyl]-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

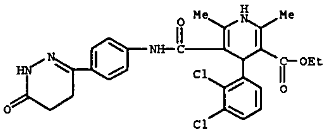
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104536-97-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 2-[(acetyloxy)methyl]-1,4-dihydro-6-methyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

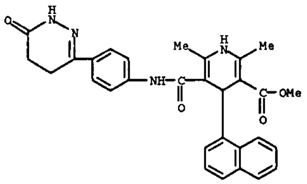


RN 104536-98-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

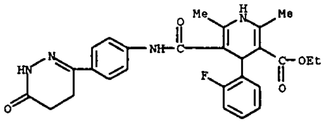


RN 104536-99-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(1-naphthalenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

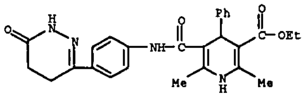
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-00-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-fluorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

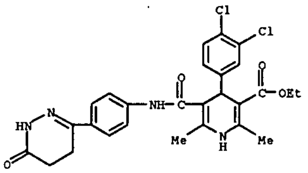


RN 104537-01-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-phenyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

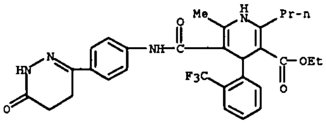


RN 104537-02-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3,4-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

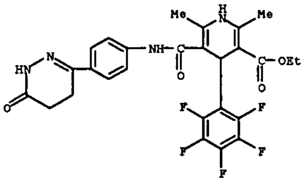
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-03-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-6-methyl-2-propyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

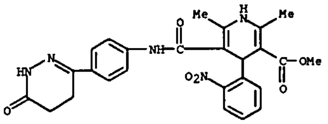


RN 104537-04-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(pentafluorophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

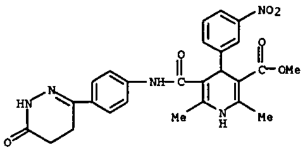


RN 104537-05-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

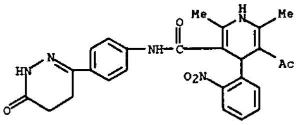
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-06-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

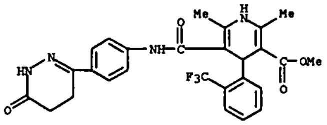


RN 104537-07-7 CAPLUS
CN 3-Pyridinecarboxamide, 5-acetyl-1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

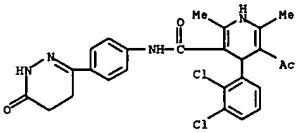


RN 104537-08-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-09-9 CAPLUS
CN 3-Pyridinecarboxamide, 5-acetyl-4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)



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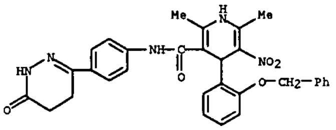
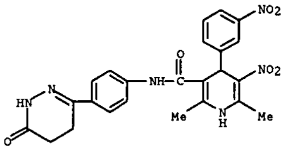
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(phenylmethoxy)phenyl]-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

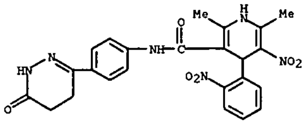


RN 104537-11-3 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(3-nitrophenyl)-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

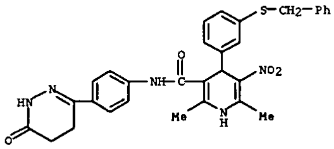
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-12-4 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(2-nitrophenyl)-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

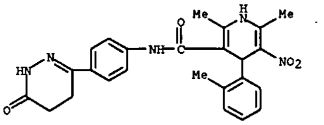


RN 104537-13-5 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-[3-[(phenylmethyl)thio]phenyl]-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

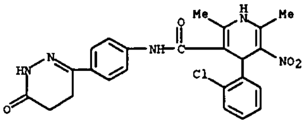


RN 104537-14-6 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-4-(2-methylphenyl)-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

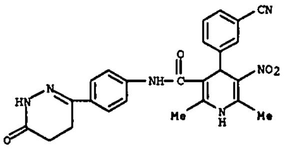
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-15-7 CAPLUS
CN 3-Pyridinecarboxamide, 4-(2-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

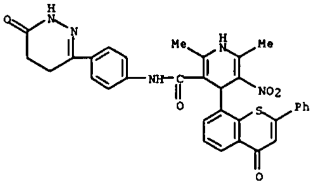


RN 104537-16-8 CAPLUS
CN 3-Pyridinecarboxamide, 4-(3-cyanophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

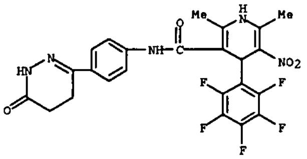


RN 104537-17-9 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(4-oxo-2-phenyl-4H-1-benzothiopyran-8-yl)-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

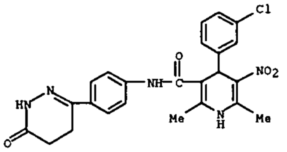
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-19-1 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-(pentafluorophenyl)-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

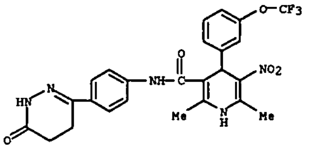


RN 104537-20-4 CAPLUS
CN 3-Pyridinecarboxamide, 4-(3-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

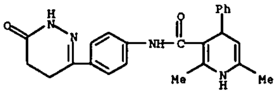


RN 104537-21-5 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-

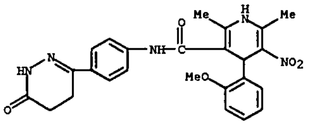
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
tetrahydro-6-oxo-3-pyridazinyl)phenyl]-4-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 104537-24-8 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-4-phenyl-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

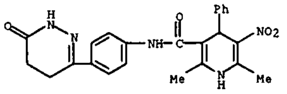


RN 104537-25-9 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

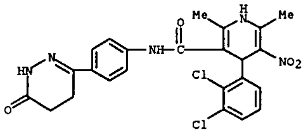


RN 104537-26-0 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-4-phenyl-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

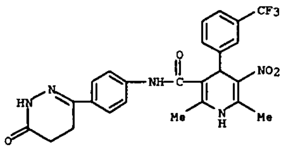
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-28-2 CAPLUS
CN 3-Pyridinecarboxamide, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

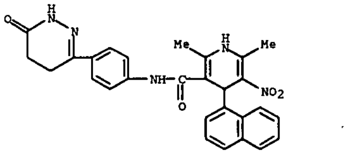


RN 104537-29-3 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

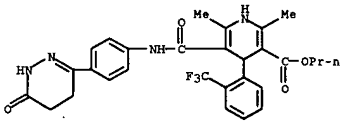


RN 104537-31-7 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-4-(1-naphthalenyl)-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

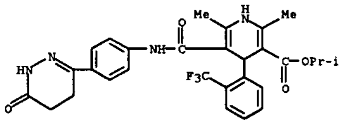
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



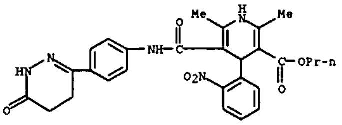
RN 104537-37-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, propyl ester (9CI) (CA INDEX NAME)



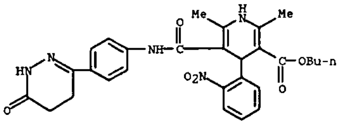
RN 104537-38-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



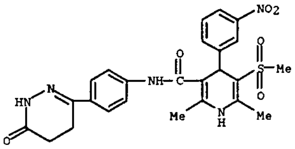
RN 104537-39-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, propyl ester (9CI) (CA INDEX NAME)



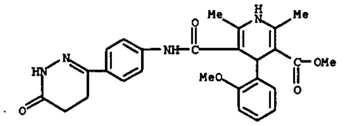
RN 104537-40-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, butyl ester (9CI) (CA INDEX NAME)



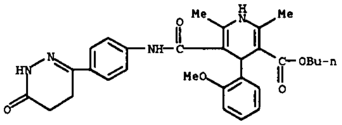
RN 104537-41-9 CAPLUS
CN 3-Pyridinecarboxamide, 1,4-dihydro-2,6-dimethyl-5-(methylsulfonyl)-4-(3-nitrophenyl)-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)



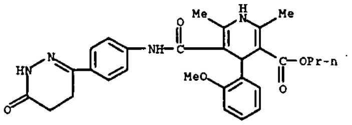
RN 104537-42-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



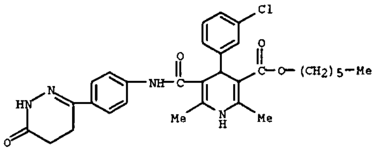
RN 104537-43-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, butyl ester (9CI) (CA INDEX NAME)



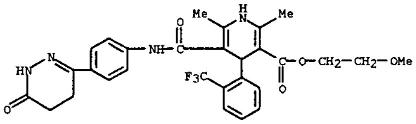
RN 104537-44-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, propyl ester (9CI) (CA INDEX NAME)



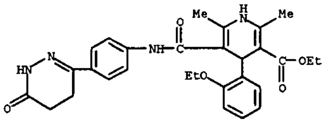
RN 104537-45-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(3-chlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, hexyl ester (9CI) (CA INDEX NAME)



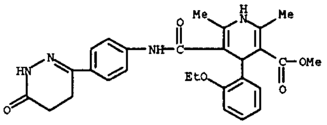
RN 104537-46-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



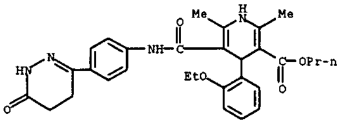
RN 104537-47-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-ethoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



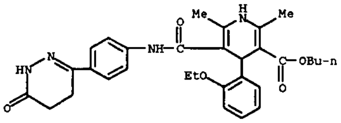
RN 104537-48-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-ethoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 104537-49-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-ethoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, propyl ester (9CI) (CA INDEX NAME)

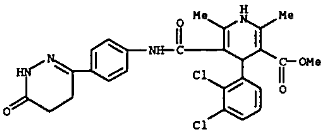


RN 104537-50-0 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-ethoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, butyl ester (9CI) (CA INDEX NAME)

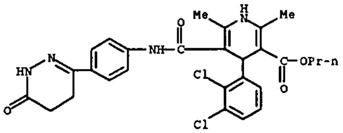


RN 104537-51-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

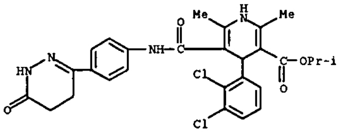
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-52-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, propyl ester (9CI) (CA INDEX NAME)

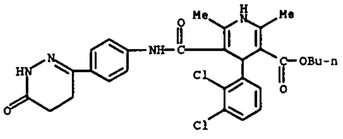


RN 104537-53-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

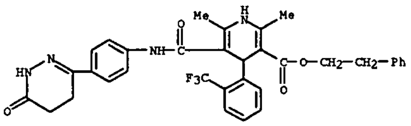


RN 104537-54-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, butyl ester (9CI) (CA INDEX NAME)

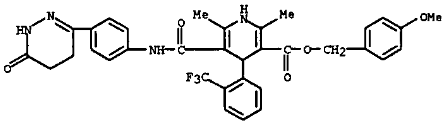
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-55-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, 2-phenylethyl ester (9CI) (CA INDEX NAME)

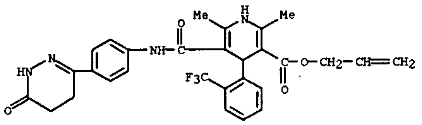


RN 104537-56-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, (4-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

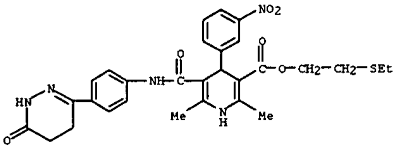


RN 104537-57-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)

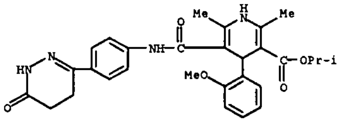
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-58-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, 2-(ethylthio)ethyl ester (9CI) (CA INDEX NAME)

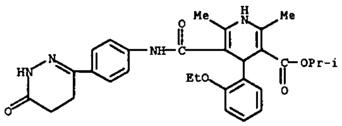


RN 104537-61-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

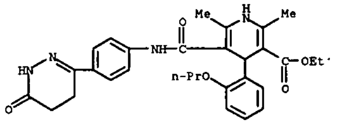


RN 104537-62-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-ethoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

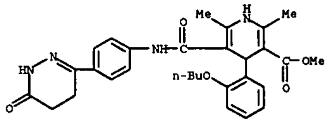
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-63-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-propoxyphenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

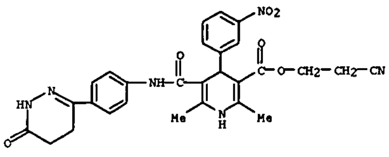


RN 104537-64-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2-butoxyphenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

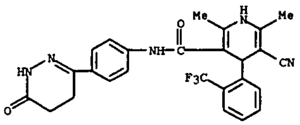


RN 104537-65-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

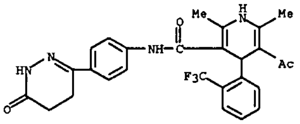
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104537-66-8 CAPLUS
CN 3-Pyridinecarboxamide, 5-cyano-1,4-dihydro-2,6-dimethyl-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]-4-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

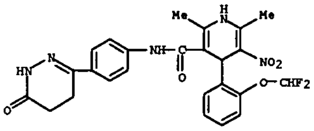


RN 104552-40-1 CAPLUS
CN 3-Pyridinecarboxamide, 5-acetyl-1,4-dihydro-2,6-dimethyl-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]-4-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

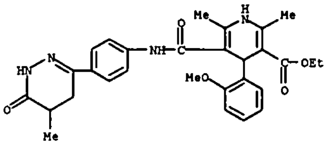


RN 104552-41-2 CAPLUS
CN 3-Pyridinecarboxamide, 4-[2-(difluoromethoxy)phenyl]-1,4-dihydro-2,6-dimethyl-5-nitro-N-[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]- (9CI) (CA INDEX NAME)

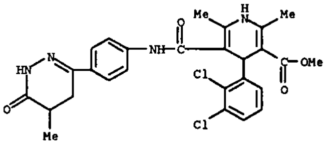
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104552-43-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-4-(2-methoxyphenyl)-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-5-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

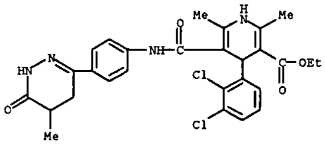


RN 104552-44-5 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

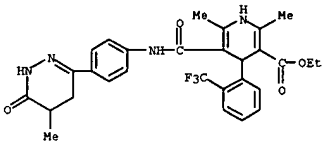


RN 104552-45-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-5-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

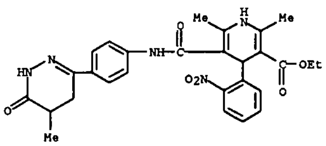
L4 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 104552-46-7 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-5-[[[4-(1,4,5,6-tetrahydro-5-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-4-[2-(trifluoromethyl)phenyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 104552-47-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-5-[[[4-(1,4,5,6-tetrahydro-5-methyl-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

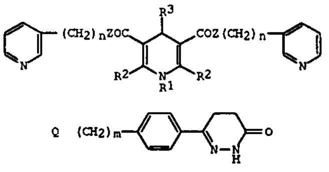
ACCESSION NUMBER:	1986:533757 CAPLUS
DOCUMENT NUMBER:	105:133757
TITLE:	Dihydropyridinecarboxylate derivs.
INVENTOR(S):	Rosentreter, Ulrich; Perzborn, Elisabeth; Seuter, Friedel
PATENT ASSIGNEE(S):	Bayer A.-G. , Fed. Rep. Ger.
SOURCE:	Ger. Offen., 41 pp. CODEN: GWXXBX
DOCUMENT TYPE:	Patent
LANGUAGE:	German
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3431862	A1	19860313	DE 1984-3431862		19840830
US 4686229	A	19870811	US 1985-765908		19850814
EP 173204	A2	19860305	EP 1985-110353		19850819
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE					
ES 546487	A1	19860716	ES 1985-546487		19850828
DK 8503934	A	19860301	DK 1985-3934		19850829
ZA 8506595	A	19860430	ZA 1985-6595		19850829
JP 61060683	A2	19860328	JP 1985-190018		19850830
ES 554062	A1	19870401	ES 1986-554062		19860416
PRIORITY APPLN. INFO.:			DE 1984-3431862	A	19840830

OTHER SOURCE(S): MARPAT 105:133757

GI



I

AB The title compds. I [R1 = H, (un)substituted alkyl; R2 = H, alkyl; R3 = H, alkyl, CO2H, alkoxycarbonyl, (un)substituted aryl, CONHR4; R4 = Q (m = 0, 1), alkyl, aryl, heteroaryl, aralkyl, heteroaralkyl; n = 1-6; Z = S, O, NH) were prepared as antithrombotics. Thus, 4-(OCH)C6H4CHO was reduced with NaBH4 to give 34.5% 4-HOCH2C6H4CHO. This was cyclocondensed with NH3 and 3-(3-pyridyl)propyl acetoacetate to give 12% I [R1 = H, R2 = Me, R3 = 4-(HOCH2)C6H4, n = 3, Z = O] (II). In blood platelet prepns. II inhibited thromboxane A2 synthesis at 0.3-0.1 mg/L.

IT **104184-50-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as antithrombotic)

RN 104184-50-1 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-[4-[[[4-(1,4,5,6-

L4 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
tetrahydro-6-oxo-3-pyridazinyl)phenyl]amino]carbonyl]phenyl]-,
bis[3-(3-pyridinyl)propyl] ester (9CI) (CA INDEX NAME)